The Neuro-Interventional Clinic

The Neuro-Interventional Clinic located within the Surgical Specialists Centre, is managed by neurosurgeons and interventional radiologists. You will be referred here if you are diagnosed with an incidental aneurysm, and the specialists will evaluate and recommend the most suitable treatment for your condition.



Surgical Specialists Centre

NUH Medical Centre Level 15
Email: surgical_specialists_centre@nuhs.edu.sq

Appointment Line: (65) 6772 2002

Opening Hours:

Monday to Friday: 8:30am - 5:30pm Closed on Sat, Sun & Public Holidays



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P Carpark

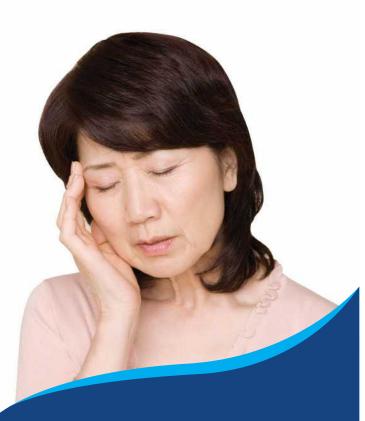
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Management of Aneurysms



What is an aneurysm?

An aneurysm of an artery in the brain is an outward bulge in the artery, caused by weakness in the arterial wall. Aneurysms can occur at any age, however they are most often detected in patients between 40 and 60 years old.

How do aneurysms occur?

Aneurysms can occur as ruptured aneurysms, where the bulge bursts and leads to bleeding in the brain (also known as subarachnoid haemorrhage) and catastrophic consequences ranging from speech problems, difficulties in walking, coma and even death.

Aneurysms can also be picked up incidentally when the patient undergoes a scan due to other reasons. These are called incidental aneurysms.

Symptoms of aneurysm

Patients may experience the following symptoms if the aneurysm ruptures:

- Sudden onset of "thunder-clap" headache
- Vomiting
- Blurring of vision
- Neck stiffness
- Weakness or numbness in arms or legs (depending on the location of rupture)

Do all aneurysms need to be treated?

If the aneurysm has ruptured, it needs to be treated, as an unsecured aneurysm can lead to a recurrence of bleeding and worsening of the damage to the brain.

If the aneurysm has not ruptured and is picked up incidentally, appropriate intervention will be applied depending on the size and location of the aneurysm (see table below), and you will be seen in the Neuro-Interventional Clinic located within the Surgical Specialists Centre.

| | <7 mm | 7-12 mm | 13-24 mm | 25 mm |
|-------------------------|----------|------------|-------------|----------|
| Cavemous carotid artery | 0 | 0 | 3.0% | 6.4% |
| AC/IC/MC | 1.5% | 2.6% | 14.5% | 40% |
| Post-P comm | 3.4% | 14.5% | 18.4% | 50% |

AC = anterior communicating or anterior celebral artery
IC = internal carotid artery (not cavemous carotid artery)

MC = middle celebral artery

Post-P comm = vertebrobasilar, posterior celebral arterial system, or the posterior communicating artery

I have been diagnosed with an incidental aneurysm. What are my treatment options?

Surgical Clipping

Surgical clipping has been the traditional method for the treatment of brain aneurysms. This method requires a neurosurgeon to remove a part of the skull to access the brain and blood vessels. The blood flow to



the aneurysm is blocked by placing a metal clip at the neck of the aneurysm. The wound is then sealed and closed.

Endovascular Coil Therapy

Endovascular coil therapy is a less invasive method. During endovascular treatment, a catheter (small tube) is inserted into the patient's femoral artery in the leg and advanced through the body until the aneurysm



is accessed from within. Small metal coils are then inserted through the catheter until the flow of blood into the aneurysm is blocked. This reduces pulsation, and over time, new tissue will cover the opening of the aneurysm, preventing the aneurysm from growing or bleeding.